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FORM PTO-1390 (REV 10-95) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371

ATTORNEY DOCKET NUMBER: 15675P390

U.S. APPLICATION NO. (If known, see 37 CFR 1.5): 10/069028

INTERNATIONAL APPLICATION NO.	INTERNATIONAL FILING DATE	PRIORITY DATE CLAIMED
PCT/FR00/02289	August 10, 2000	August 13, 1999

TITLE OF INVENTION
METHOD FOR PRODUCING ON A BARGE OR WORK SITE AN ASSEMBLY OF TWO METAL TUBES OF A

APPLICANT(S) FOR DO/EO/US
Pierre Roger; Jacques Vila

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☐ This express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b)) and PCT articles 22 and 39(1).
4. ☒ A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
5. ☒ A copy of the International Application as filed (35 U.S.C. 371(c)(2)).
   a. ☒ is transmitted herewith (required only if not transmitted by the International Bureau).
   b. ☐ has been transmitted by the International Bureau.
   c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☒ A translation of the International Application into English (35 U.S.C. 371(c)(2)).
7. ☐ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)).
   a. ☐ is transmitted herewith (required only if not transmitted by the International Bureau).
   b. ☐ have been transmitted by the International Bureau.
   c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
   d. ☐ have not been made and will not be made.
8. ☐ A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☐ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. ☐ A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11. to 16. below concern document(s) or information included:

11. ☐ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☐ A FIRST preliminary amendment.
    ☐ A SECOND or SUBSEQUENT preliminary amendment.
14. ☐ A subsequent specification.
15. ☐ A change of power of attorney and/or address letter.
16. ☒ Other items or information:

priority request; formal drawings transmittal; copy of Preliminary Examination Report w/amended pages; copy of English translation of Preliminary Examination Report; English translation of amended pages; copy of forms PCT/IB301&304; copy of request of filing; copy of complete application w/amended pages (10 pages)

U.S. APPLICATION NO (if known, see 37 CFR 1.5)	INTERNATIONAL APPLICATION NO	ATTORNEY'S DOCKET NUMBER
10/069028	PCT/FR00/02289	15675P390

17. ☒ The following fees are submitted:

CALCULATIONS	FOR PTO USE ONLY

BASIC NATIONAL FEE (37 CFR 1.492 (a) (1) - (5)):

Neither international preliminary examination fee (37 CFR 1.482 nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by EPO or JPO **$1040.00**

International preliminary examination fee (37CFR1.482)not paid to USPTO but International Search Report prepared by the EPO or JPO.... **$890.00**

International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search fee paid to USPTO (37 CFR 1.445(a)(2)) **$740.00**

International preliminary examination fee paid to USPTO (37 CFR 1.482) but all claims did not satisfy provisions of PCT Article 33(1)-(4) **$710.00**

International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33(1)-(4) **$100.00**

ENTER APPROPRIATE BASIC FEE AMOUNT =				$	890.00
Surcharge of **$130.00** for furnishing the oath or declaration later than ☐ 20 ☐ 30 months from the earliest claimed priority date (37 CFR 1.492(e)).				$	
CLAIMS	NUMBER FILED		NUMBER EXTRA	RATE	
Total claims	16	- 20 =	0	X $18.00	$ 0.00
Independent claims	1	- 3 =	0	X $84.00	$ 0.00
MULTIPLE DEPENDENT CLAIM(S) (if applicable)				+ $280.00	$ 280.00
TOTAL OF ABOVE CALCULATIONS =					$ 1170.00
Reduction of 1/2 for filing by small entity, if applicable. Verified Small Entity Statement must also by filed (Note 37 CFR 1.9, 1.27, 1.28).					$
SUBTOTAL =					$ 1170.00
Processing fee of **$130.00** for furnishing the English translation later than ☐ 20 ☐ 30 months from the earliest claimed priority date (37 CFR 1.492(f)). +					$
TOTAL NATIONAL FEE =					$ 1170.00
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). **$40.00** per property +					$
TOTAL FEES ENCLOSED =					$ 1170.00
				Amount to be: refunded	$
				charged	$

a. ☒ A check in the amount of $ 1170.00 to cover the above fees is enclosed.

b. ☐ Please charge my Deposit Account No. _____ in the amount of $_____ to cover the above fees. A duplicate copy of this sheet is enclosed.

c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 022666. A duplicate copy of this sheet is enclosed.

NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.

SEND ALL CORRESPONDENCE TO.

Blakely, Sokoloff, Taylor & Zafman LLP
12400 Wilshire Blvd. 7th Floor
Los Angeles, CA 90025-1026

SIGNATURE

Eric S. Hyman
NAME

30,139
REGISTRATION NUMBER

A METHOD OF ASSEMBLING TOGETHER TWO METAL TUBES OF A SEA PIPE-LINE ON A BARGE OR ON LAND, AND OF INSULATING THE ASSEMBLY ZONE, AND TUBES ADAPTED THEREFOR

The present invention relates to a method and to apparatus for use on board a barge or on land for assembling together two tubes of a sea pipe-line and for insulating the assembly zone by means of a thermally insulating outer coating that withstands external pressure and is watertight, the coating being obtained by hardening a substance applied onto the tubes.

The time required for the insulating and sealing substance to set is a handicap to laying tubes quickly at sea.

An object of the present invention is to avoid that handicap.

According to the invention, this is achieved by using metal tubes that can be assembled together mechanically to predetermined final relative positions, and prior to assembly, individual insulating and outer sealing coatings are made on the assembly ends of the metal tubes, said coatings being shaped and dimensioned in such a manner that in said predetermined final relative positions they are continuous or quasi-continuous, the tubes are assembled together, and if any residual gap remains between the coatings, it is filled with an adhesive or a sealing compound.

The term "assembled together mechanically" means that they can be assembled together by screwing or by interfitting (as opposed to assembly by welding). By way of example, the compound intended for use at assembled-together ends is based on coal-tar pitch or on polyurethane.

In preferred embodiments:

· the coatings are shaped to present facing front end joint surfaces that are plane and parallel, extending perpendicularly to the axis of the tubes or sloping in one direction or the other;

· the coatings are shaped and dimensioned so as to overlap in part;

· the coatings are shaped so as to present overlapping joint surfaces that are in the form of complementary crenellations or corrugations;

· coatings of elastomer material are used for embodiments with partial overlap;

· the joint surfaces of the coatings are temporarily protected by means of removable caps engaged in or on the assembly ends provided with their coatings and that are withdrawn prior to assembly; and

· after assembly, the assembly zone is surrounded by a heat-shrink sleeve.

Embodiments of coated metal tubes suitable for implementing the method are described below with reference to the figures of the accompanying drawings, in which:

· Figure 1 is an axial section through tubes constituting a first embodiment of the invention and prior to being assembled together;

· Figure 2 is an axial section through the Figure 1 tubes, after the coated tubes have been assembled together;

· Figure 3 is a detail view of the coated-tube assembly zone, in a variant embodiment;

· Figures 4 and 5 are views analogous respectively to those of Figures 1 and 2, for a second variant embodiment; and

· Figures 6 and 7 are views analogous respectively to those of Figures 1 and 2, for a third variant embodiment.

The figures show two metal piping tubes (T1, T2) for assembling together by inserting and fixing a male assembly end of a "male" tube (T1) a certain distance into a female assembly end of the other tube (T2) which is said to be "female".

In the embodiments shown, the female assembly end is defined by a female end (1a) of a connector (1) integrated in the female metal tube (T2) e.g. by screwing, while the male assembly end is defined by one end (2) of the male metal tube (T1) itself.

By way of example, the female assembly end (1a) and the male assembly end (2) both present threads (3, 4) suitable for co-operating to enable the tubes to be assembled together by screwing.

There is no need to describe in greater detail the connector which is of conventional type and is constituted, for example, by a metal bushing defining two opposite cylindrical or frustoconical volumes (1a, 1b) on either side of a stop ring (1c) for receiving respectively one tube end and the other tube end.

In accordance with the invention, prior to being assembled together, the assembly ends of the metal tubes are provided with respective outer coatings (R1, R2) that are leakproof and thermally insulating, being shaped and dimensioned in such a manner that after assembly they leave between them a gap of small or zero thickness.

The coatings are made by molding suitable materials and allowing them to set, for example:

· for solutions without overlap (Figures 1, 2, and 3), materials based on synthetic foam comprising an epoxy or a polyurethane resin associated with a filler that improves its coefficient of insulation (glass microspheres, microspheres of expanded clay, aluminum alloy, titanium, composite fibers, or metal foam);

· for solutions having overlap (Figures 4, 5, 6, and 7) elastomer resin materials of the "hyperlast" or other type, based on silicone or on polyurethane associated with a filler improving its coefficient of insulation of the same type as above.

According to an advantageous feature of the present invention, the assembly ends of the tubes (T1, T2) provided with their outer coating are provided with

temporary protective caps (5, 6) detachably engaged respectively in the end of the female tube and on the end of the male tube to protect the joint surfaces of the coatings while the tubes are passing over installation rollers or skids.

The various embodiments shown in the drawings differ in the following features:

In the embodiment of Figures 1 and 2, the preformed coatings (R1, R2) are tubes presenting facing end joint surfaces (7, 8) that are annular, plane, parallel, and perpendicular to the axis of the tubes or oblique relative to said axis.

The front end surface (7) of the coating (R2) of the female tube lies substantially in the front end plane (E) of the front end of the connector (1) while the front end surface (8) of the coating (R1) of the male tube lies substantially in the plane (L) defining the rear limit of the insertion zone for said tube into the connector, such that once the tubes have been assembled together, the facing front end surfaces (7, 8) define between them a gap (i) of zero or almost zero width.

In the embodiment of Figure 3, the front end joint surfaces (7, 8) are plane, parallel, and sloping, i.e. oblique relative to the axis of the tubes. They can slope in one direction or the other.

In the embodiments of Figures 4 to 7, the coatings are made of elastomer material and are shaped to present surfaces which overlap once assembled.

For example, one of the coatings defines between itself and the tube which carries it an annular blind gap (9) that is open in a forward direction while the other coating presents an annular projection (10) suitable for penetrating into said gap when the tubes are assembled together.

In the embodiment shown in Figures 4 and 5, it is the coating (R1) of the male tube (T1) that defines a gap (9), while it is the coating (R2) of the female tube (T2)

that presents a projection (10) suitable for being received in the gap, whereas in the embodiment of Figures 6 and 7, it is the coating (R2) of the female tube (T2) that presents a gap (11) cantilevered-out forwards, while the coating (R1) on the male tube (T1) presents a projection (12) suitable for being received in the gap (11).

The shapes of the overlapping joint surfaces (13, 14) of the coatings are complementary in the overlap zone so as to provide sealing that is dry or with the addition of grease, or of adhesive, or of grease-adhesive.

By way of example they can be sinuous (Figures 4 and 5) or stepped (Figures 6 and 7).

Preferably, one of the joint surfaces presents a bulge (15) while the other presents a corresponding indentation (16) (Figures 6 and 7).

A sleeve (M) preferably of heat-shrink material is placed over the assembly zone.

In the examples shown in the drawings, each tube is constituted by an inner metal tube (t_i) and an outer metal tube (t_e) welded to the inner tube and with an insulating material (K) interposed between the two tubes.

A protective material (r) covers the outer tube.

The inner tube projects beyond the outer tube and the coating applied in accordance with the invention covers the projecting portion of the inner tube completely or in part, and covers a portion of the outer tube.

The invention is not limited to this particular tube structure.

CLAIMS

1/ A method of assembling two tubes of a sea pipe-line on a barge or on land, and of insulating the assembly zone by means of a thermally insulating outer coating that is watertight and that withstands external pressure, the coating being obtained by allowing a substance applied to the tubes to harden, in which method use is made of metal tubes (T1, T2) that can be assembled together mechanically to predetermined final relative positions, and prior to assembly, individual insulating and sealing coatings (R1, R2) are made on the assembly ends of the tubes, said coatings being shaped and dimensioned in such a manner that in said predetermined final relative positions they are continuous or quasi-continuous, the tubes coated in this way are assembled together, and if any residual gap remains between the coatings, it is filled with an adhesive or a sealing compound.

2/ A method according to claim 1, in which the coatings are shaped to present facing front end joint surfaces that are plane and parallel, extending perpendicularly to the axis of the tubes or sloping in one direction or the other.

3/ A method according to claim 1 or claim 2, in which the coatings are made of elastomer material and are shaped and dimensioned so as to penetrate in part one into the other during assembly, thereby presenting overlapping surfaces (13, 14).

4/ A method according to claim 3, in which the coatings are of elastomer material and are shaped to present respective overlapping surfaces (13, 14) of complementary crenellated or corrugated shapes.

5/ A method according to claim 3 or claim 4, in which grease is applied to the overlapping surfaces of the

coatings so as to facilitate the penetration of one coating into the other during assembly.

6/ A method according to claims 3 to 5, in which the overlapping surfaces (13, 14) of the coatings are protected temporarily by means of removable caps (5, 6) engaged on or in the tubes, which caps are removed prior to assembly.

7/ A method according to any one of claims 1 to 6, in which, after assembly, the assembly zone is surrounding by a heat-shrink sleeve (M).

8/ Metal piping tubes for implementing a method according to any one of claims 1 to 7, characterized in that they are suitable for being assembled together by inserting and fixing a male assembly end and a "male" tube (T1) a certain distance into a female assembly end of the other tube (T2) referred to as the "female" tube, and in that the assembly ends of the tubes are provided, prior to assembly, with respective outer coatings (R1, R2) that are thermally insulating, waterproof, and that withstand external pressure, the coatings being shaped and dimensioned in such a manner that after assembly they leave between them a gap of small or zero width.

9/ Piping tubes according to claim 8, in which the female assembly end is defined by a female end (1a) of a connector (1) integrated with the female tube (T2) by screwing, for example, while the male assembly end is defined by one end (2) of the male metal tube (T1) itself.

10/ Piping tubes according to claim 8 or claim 9, in which the coatings (R1, R2) preformed on the two tubes present facing annular front end surfaces (7, 8) which are plane and parallel, being perpendicular to the axis

of the tubes or sloping relative thereto in one direction or the other.

11/ Piping tubes according to claim 10, in which the front surface (7) of the outer coating (R2) of the assembly end of the female tube lies substantially in the front end plane (E) of the connector (1) while the front end surface (8) of the outer coating (R1) of the assembly end of the male tube lies substantially in the plane (L) defining the rear limit of the insertion zone of said tube into the connector so that once assembly has been performed the facing front end surfaces (7, 8) of the outer coatings leave between them a gap (i) of zero or almost zero width.

12/ Piping tubes according to claim 8 or claim 9, in which said outer coatings are of elastomer material, the coating of the assembly end of one of the tubes defining a blind annular gap (9) between itself and the metal tube which carries it, said gap being forwardly open, while the coating of the assembly end of the other tube presents an annular projection (10) suitable for penetrating with friction into the gap when the tubes are assembled together so that the coatings present overlapping surfaces (13, 14).

13/ Piping tubes according to claim 12, in which one of the overlapping surfaces (13, 14) of the coatings presents one or more bulges (15) while the other presents one or more corresponding indentations (16).

14/ Piping tubes according to any one of claims 8 to 14, having removable caps (5, 6) engaged on or in the assembly ends provided with their coatings to protect the joint surfaces (7, 8; 13, 14) of the coatings.

(12) DEMANDE INTERNATIONALE PUBLIÉE EN VERTU DU TRAITÉ DE COOPÉRATION EN MATIÈRE DE BREVETS (PCT)

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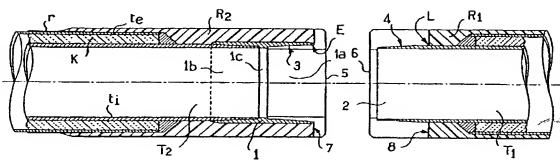
(81) États désignés *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) États désignés *(régional)*: brevet ARIPO (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), brevet eurasien (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), brevet européen (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), brevet OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

[Suite sur la page suivante]

(54) Title: METHOD FOR PRODUCING ON A BARGE OR WORK SITE AN ASSEMBLY OF TWO METAL TUBES OF A SEA LINE AND INSULATING THE ASSEMBLY ZONE AND ADAPTED TUBES THEREFOR

(54) Titre: PROCEDE POUR REALISER SUR BARGE OU CHANTIER L'ASSEMBLAGE DE DEUX TUBES METALLIQUES D'UNE CONDUITE EN MER ET L'ISOLATION DE LA ZONE D'ASSEMBLAGE ET TUBES ADAPTES POUR CE PROCEDE



(57) Abstract: The invention concerns a method wherein tubes (T1, T2) capable of being mechanically assembled in predetermined final relative positions which consists in: producing on the assembling ends of the tubes, before they are assembled, individual insulating and sealing coats (R1, R2) shaped and dimensioned so that in said predetermined final relative positions the coats are uninterrupted or almost uninterrupted; assembling the tubes and filling, if necessary, the possible residual gap (i) between the coats with an adhesive or sealant. Preferably, a sleeve (M) made of a heat-shrinkable material is provided on the assembly zone. The invention is applicable to sea lines.

(57) Abrégé: On utilise des tubes (T1, T2) assemblables mécaniquement jusque dans des positions relatives finales prédéterminées; on réalise sur les extrémités d'assemblage des tubes, avant leur assemblage, des revêtements d'isolation et d'étanchéité individuels (R1, R2) conformés et dimensionnés en sorte que dans lesdites positions relatives finales prédéterminées les revêtements soient en continuité ou en quasi-continuité, on assemble les tubes et on comble s'il y a lieu l'intervalle résiduel éventuel (i) entre les revêtements au moyen d'une colle ou d'un mastic. De préférence un manchon (M) en matériau thermorétractable est disposé sur la zone d'assemblage. Application aux conduites en mer.

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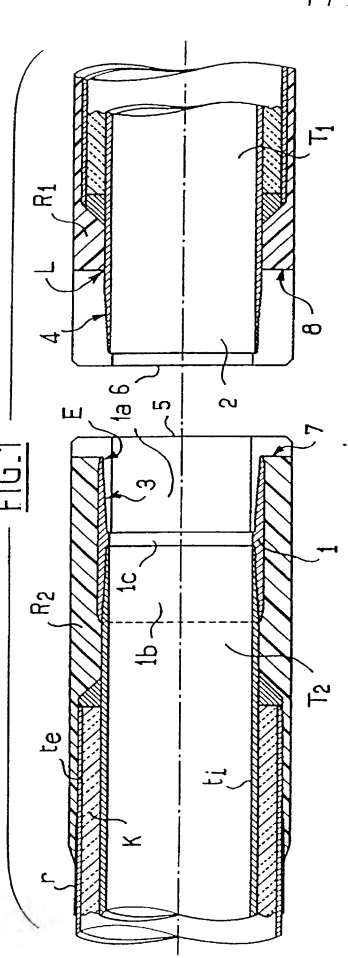
FIG.1
R1
L
4
T1
8
2
E
1a
6
5
3
7
1
R2
1c
1b
T2
te
ti
K
r

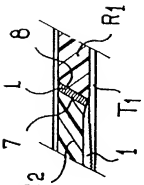
FIG.3
8
R1
i
7
T1
1
R2

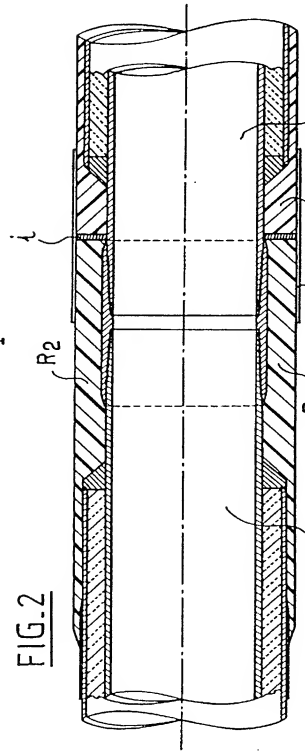
FIG.2
T1
R1
i
M
R2
R2
T2

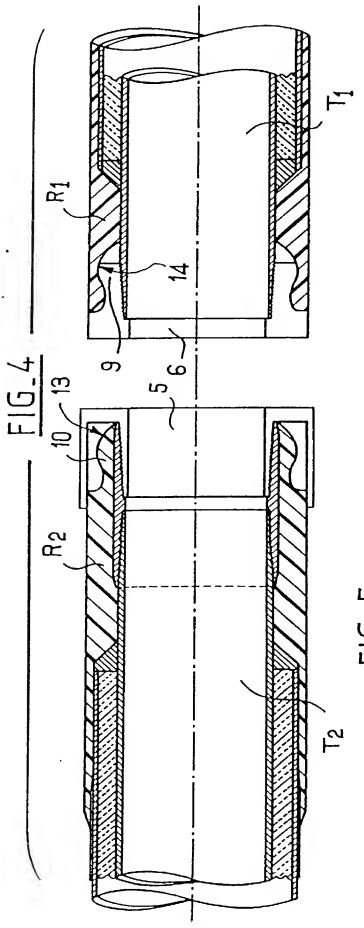

FIG_4

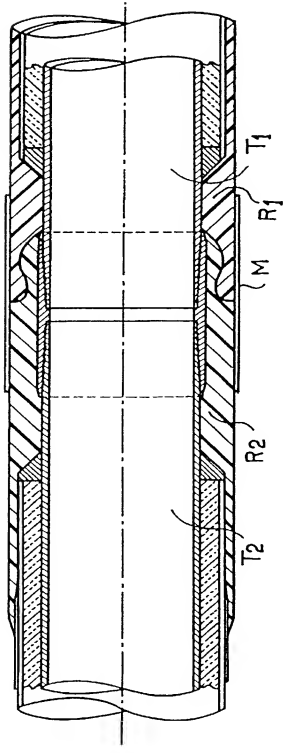

FIG_5

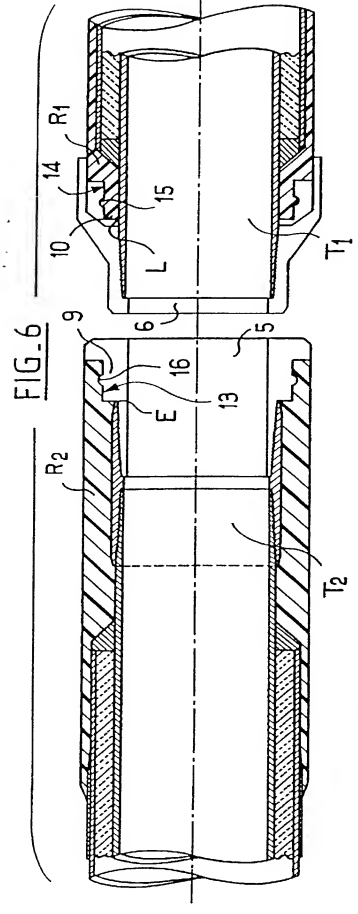

FIG_6

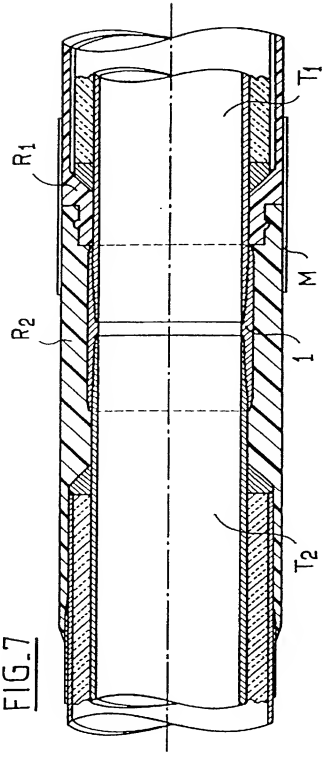

FIG_7

Our ref.: 15675.P390

DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below, next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

METHOD FOR PRODUCING ON A BARGE OR WORK SITE AN ASSEMBLY OF TWO METAL TUBES OF A SEA LINE AND INSULATING THE ASSEMBLY ZONE AND ADAPTED TUBES THEREFOR.

the specification of which

is attached hereto
was filed on August 10, 2000 as
Application Serial No. PCT/FR00/02289
And was amended on
(if applicable)

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above. I do not know and do not believe that the same was ever known or used in the United States of America before my invention thereof, or patented or described in any printed publication in any country before my invention thereof or more than one year prior to this application, that the same was not in public use or on sale in the United States of America more than one year prior to this application, and that the invention has not been patented or made the subject of an inventor's certificate issued before the date of this application in any country foreign to the United States of America on an application filed by me or my legal representatives or assigns more than twelve months prior to this application.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, Section 1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, Section 199, of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor(s) certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)			**Priority Claimed**	
99 10478	FRANCE	August 13, 1999	X	
(Number)	(Country)	(Day/Month/Year Filed)	Yes	No
(Number)	(Country)	(Day/Month/Year Filed)	Yes	No
(Number)	(Country)	(Day/Month/Year Filed)	Yes	No

I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, Section 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, Section 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application.

PCT/FR00/02289 (Application Serial No.)	August 10, 2000 (Filing Date)	Pending (Status - patented, pending, abandoned)
(Application Serial No.)	(Filing Date)	(Status - patented, pending, abandoned)
(Application Serial No.)	(Filing Date)	(Status - patented, pending, abandoned)

I hereby appoint BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN, a firm including : Keith G. Askoff, Reg. No. 33,828; Aloysius T.C. AuYeung, Reg. No. 35,432; Bradley J. Bereznak, Reg. No. 33,474; Michael A. Bernadicou, Reg. No. 35,934; Roger W. Blakely, Jr.; Reg. No. 25,831; Timothy R. Croll, Reg. No. 36,771; Daniel M. De Vos, Reg. No. 37,813; Scott A. Griffin, Reg. No. 38,167; Stephen D. Gross, Reg. No. 31,020; David R. Halvorson, Reg. No. 33,395; Michael D. Hartogs, Reg. No. 36,547; Brian D. Hickman, Reg. No. 35,894; George W. Hoover II, Reg. No. 32,992; Paul H. Hostmann, Reg. No. 36,167; Eric S. Hyman, Reg. No. 30,139; Dag H. Johansen, Reg. No. 36,172; Stephen L. King, Reg. No. 19,180; Joseph T. Lin, Reg. No. 38,225; Michael J. Mallie, Reg. No. 36,591; James D. McFarland, Reg. No. 32,544; Anthony C. Murabito, Reg. No. 35,295; Kimberley G. Nobles, Reg. No. 38,255; Ronald W. Reagin, Reg. No. 20,340; Kent R. Richardson, Reg. No. P-39,443; James H. Salter, Reg. No. 35,668; William W. Schaal, Reg. No. P-39,018; James C. Sheller, Reg. No. 31,195; Edward W. Scott IV, Reg. No. 36,000; Maria E. Sobrino, Reg. No. 31,639; Stanley W. Sokoloff, Reg. No. 25,128; Allan T. Sponseller, Reg. No. 38,318; John C. Stattler, Reg. No. 36,285; Edwin H. Taylor, Reg. No. 25,129; Lester J. Vincent, Reg. No. 31,460; Ben J. Yorks, Reg. No. 33,609; and Norman Zafman, Reg. No. 26,250; my attorneys; and William D. Davis, Reg. No. 38,428; Gary B. Goates, Reg. No. 35,159; Soyeon P. Laub, Reg. No. P-39,266; Thomas X. Li, Reg. No. 37,079; and Edwin A. Sloane, Reg. No. 34,728; my patent agents, with offices located at 12400 Wilshire Boulevard, 7th Floor, Los Angeles, California 90025, telephone (310) 207-3800, with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

1-00

Full Name of Sole/First Inventor: **ROGER Pierre**

Inventor's Signature: _____ Date: March 18, 2002

Residence: 3, Avenue des Chambards, 92270 Bois-Colombes (City, State) Citizenship: FRANCE (Country) FRX

Post Office Address: Same as residence

2-00

Full Name of Second/Joint Inventor: **VILA Jacques**

Inventor's Signature: _____ Date: March 18, 2002

Residence: 18, Boulevard d'Alembert – 78180 Montigny-le-Bretonneux (City, State) Citizenship: (Country)

Post Office Address: Same as residence

Our ref.: 15675.P390

DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below, next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

METHOD FOR PRODUCING ON A BARGE OR WORK SITE AN ASSEMBLY OF TWO METAL TUBES OF A SEA LINE AND INSULATING THE ASSEMBLY ZONE AND ADAPTED TUBES THEREFOR.

the specification of which

is attached hereto
was filed on August 10, 2000 as
Application Serial No. PCT/FR00/02289
And was amended on
(if applicable)

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above. I do not know and do not believe that the same was ever known or used in the United States of America before my invention thereof, or patented or described in any printed publication in any country before my invention thereof or more than one year prior to this application, that the same was not in public use or on sale in the United States of America more than one year prior to this application, and that the invention has not been patented or made the subject of an inventor's certificate issued before the date of this application in any country foreign to the United States of America on an application filed by me or my legal representatives or assigns more than twelve months prior to this application.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, Section 1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, Section 199, of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor(s) certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)			Priority Claimed	
99 10478	FRANCE	August 13, 1999	X	
(Number)	(Country)	(Day/Month/Year Filed)	Yes	No
(Number)	(Country)	(Day/Month/Year Filed)	Yes	No
(Number)	(Country)	(Day/Month/Year Filed)	Yes	No

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Full Name of Sole/First Inventor: **ROGER Pierre**

Inventor's Signature: [signature] Date: March 18, 2002

Residence: 3, Avenue des Chambards, 92270 Bois-Colombes (City, State) Citizenship: FRANCE (Country) FRX

Post Office Address: Same as residence

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Full Name of Second/Joint Inventor: **VILA Jacques**

Inventor's Signature: [signature] Date: March 18, 2002

Residence: 18, Boulevard d'Alembert – 78180 Montigny-le-Bretonneux (City, State) Citizenship: FRANCE (Country) FRX

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